Ser. No.: 10/773,691 Vinod B. Shidham, <u>et al.</u>

Page 2 of 15

Claim Amendments:

Please amend the claims to read as follows:

--1-39. (cancelled)

40. (new) A high specimen yield anti-reflux head for a needle aspiration

biopsy device, comprising: a specimen collection well with a floor at its bottom and a

sample passageway defined by at least one of an internal passage and a needle, the

sample passageway communicating with the collection well through an internal

opening in spaced relation to the floor such that a specimen can pass through the

sample passageway and be deposited in the collection well from above the floor

with collected specimens being spaced from the internal opening.

41. (new) The device of claim 40, wherein the needle defines the entire

sample passageway extending from the pointed tip to a contoured proximal end.

42. (new) The device of claim 41, wherein the proximal end of the needle

includes a segment that extends along and opens about a lateral axis at an angle to

a longitudinal axis of the needle.

43. (new) The device of claim 40, wherein the sample passageway is defined

by a combination of the needle and the internal passage.

44. (new) The device of claim 43, wherein the needle has a straight proximal

end disposed at an opening in the hub defining an end of the internal passage.

45. (new) The device of claim 44, wherein the internal passage does not pass

through the collection well floor.

Ser. No.: 10/773,691 Vinod B. Shidham, <u>et al.</u> Page 3 of 15

46. (new) The device of claim 45, wherein the internal passage includes a lateral segment that extends along and opens about a lateral axis at an angle to a

longitudinal axis of the needle.

47. (new) A high specimen yield anti-reflux head for a needle aspiration

biopsy device, comprising: a sample passageway communicating specimens through an internal opening to a collection well where specimens are collected, the sample

passageway being resistant to reflux under gravity of the collected specimens back into the sample passageway due to at least one of the configuration of the sample

passageway and the location of the internal opening relative to a floor of the

collection well.

48. (new) A high specimen yield anti-reflux head for a needle aspiration

biopsy device, comprising: a specimen collection well with a floor at its bottom, a needle opening for mounting a needle, and a sample passageway extending from

the needle opening to an interior opening located other than at the floor of the collection well in spaced relation to the floor such that a specimen can pass from the

needle opening through the sample passageway and be deposited in the collection

well from above the floor with collected specimens being spaced from the internal

opening.

49. (new) A high specimen yield anti-reflux head for a needle aspiration

biopsy device, comprising: a specimen collection well with a floor at its bottom, a needle opening for mounting a needle, and a sample passageway extending from

the needle opening to an interior opening without passing through the collection

well floor, the interior opening being in spaced relation to the collection well floor such that a specimen can pass through sample passageway and be deposited in the

collection well from above the floor.

Ser. No.: 10/773,691 Vinod B. Shidham, <u>et al.</u> Page 4 of 15

- 50. (new) A high specimen yielding anti-reflux needle aspiration biopsy device, comprising:
  - a syringe including a barrel and a piston slidable within the barrel;
  - a valve for controlling an opening in the syringe barrel;
  - a hub linked to the valve and defining a specimen collection well; and
  - a needle mounted to the hub having a shaft with an open pointed tip;

wherein at least one of the hub and needle define a sample passageway extending from the needle tip to an internal opening inside the hub, the internal opening being spaced from a floor of the collection well such that specimens can be deposited in the collection well from above the floor to resist reflux of the collected specimens back into the sample passageway.

- 51. (new) The device of claim 50, wherein the needle defines the entire sample passageway extending from the pointed tip to a contoured proximal end.
- 52. (new) The device of claim 50, wherein the sample passageway is defined in part by the needle and in part by an internal passage in the hub.
- 53. (new) The device of claim 50, further including a coupler containing the valve and connecting the hub to the syringe.
- 54. (new) The device of claim 50, further including a piston lock mounted to the syringe so as to fix the piston relative to the barrel.
- 55. (new) A method of needle aspiration biopsy using a device as recited in claim 50, comprising the steps of:

creating a vacuum in the syringe; inserting the needle into a specimen sample site; communicating the vacuum to the needle: Ser. No.: 10/773,691 Vinod B. Shidham, <u>et al.</u> Page 5 of 15

probing the specimen sample site with the needle to collect specimens in the collection well of the hub;

releasing the vacuum in the needle; withdrawing the needle from the specimen sample site; separating the hub from the syringe; and transferring specimens collected in the hub to an examination site.

- 56. (new) The method of claim 55, wherein the step of creating a vacuum in the syringe includes closing the valve and pulling the syringe piston away from the syringe barrel.
- 57. (new) The method of claim 56, wherein the vacuum is communicated to the needle by opening the valve.
- 58. (new) The method of claim 57, wherein the step of releasing the vacuum in the needle includes reclosing the valve.--